

**CLAIMS:**

What is claimed is:

1. An apparatus for attaching a leaded component to a substrate, comprising:  
a mounting plate having at least two mounting flanges and at least one hole through  
5 which to pass a lead of a component; and  
a heat sink that is secured relative to the mounting plate by the mounting flanges.

2. The apparatus according to claim 1, wherein the mounting plate further comprises:  
securing flanges for securing the component to the mounting plate.

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3. The apparatus according to claim 1, wherein the mounting flanges secure the component  
to the mounting plate.

4. The apparatus according to claim 1, wherein the heat sink includes a lower surface  
15 oriented toward the component and an upper surface and wherein the mounting flanges contact  
the upper surface of the heat sink to downwardly bias the heat sink.

5. The apparatus according to claim 1, wherein the at least two mounting flanges include  
holes for a fastener.

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6. The apparatus according to claim 5, wherein the heat sink includes holes for the fastener  
to fasten the heat sink to the mounting plate.

7. The apparatus according to claim 6, wherein the fastener includes one of a screw, a rivet, and a bolt.

8. The apparatus according to claim 1, further comprising a thermal interface material  
5 adjoining a lower surface of the heat sink.

9. The apparatus according to claim 8, wherein the mounting plate is fastened to a substrate and the heat sink is mounted to the mounting flanges and the lower surface of the heat sink is in thermal communication with an upper surface of the component through the thermal interface  
10 material.

10. The apparatus according to claim 9, wherein the flanges partially surround the component.

11. The apparatus according to claim 9, wherein the mounting plate is electrically insulated.  
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12. The apparatus according to claim 9, wherein the mounting plate is electrically conductive and is coupled to an electrical potential provided by the substrate.

13. The apparatus according to claim 1, wherein the mounting plate includes at least one hole  
20 for accommodating all of the leads of the component.

14. The apparatus according to claim 1, wherein the mounting plate includes two holes for each of the leads of the component.

15. The apparatus according to claim 1, wherein the mounting plate includes one holes for each of the leads of the component.

5 16. The apparatus according to claim 1, wherein the mounting plate includes fewer holes than the number of leads of the component.

17. The apparatus according to claim 1, wherein the component is a surface mounted component.

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18. The apparatus according to claim 1, wherein the component is a through hole mounted component.

19. A method of mounting a heat sink, comprising:

15 affixing a mounting plate to a substrate, the mounting plate having mounting flanges and at least one hole;

mounting the leads of the component to the substrate through the at least one hole;

fastening a heat sink to the mounting flanges.

20 20. The method according to claim 19, wherein the mounting brings the heat sink into thermal contact with the component.

21. The method according to claim 20, wherein the mounting brings the heat sink into thermal contact with the component through a thermally conductive material.

22. The method according to claim 19, wherein the mounting flanges partially surround the  
5 component.

23. The method according to claim 19, wherein the fastening step includes joining the mounting flanges and the heat sink with at least one member.

10 24. The method according to claim 23, wherein the at least one member is one of a screw, a rivet and a bolt.

25. The method according to claim 19, wherein the fastening includes adhering the heat sink to the mounting plate.

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26. The method according to claim 19, further comprising electrically coupling the mounting plate to a potential of the substrate.